



State of Utah

Department of
Environmental Quality

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Executive Director

DIVISION OF AIR QUALITY
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DAQE-IN0141120001-08

April 1, 2008

C. Leon Salter, Jr.
P.O. Box 1339
Monroe, North Carolina 28111-1339

Dear Mr. Salter:

Re: Intent to Approve: Approval Order to Operate a Plastic Extrusion Plant
Iron County – CDS SM; ATT; HAPs
Project Code: N014112-0001

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any questions you may have on this project to Mr. Maung Maung. He may be reached at (801) 536-4153.

Sincerely,

John T. Blanchard, Manager
Minor New Source Review Section

JTB:MM:sa

cc: Southwest Utah Public Health Department

Mike Owens, EPA Region VIII

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**INTENT TO APPROVE: Approval Order to Operate
a Plastic Extrusion Plant**

**Prepared By: Maung Maung, Engineer
(801) 536-4153
Email: mmaung@utah.gov**

INTENT TO APPROVE NUMBER

DAQE-IN0141120001-08

Date: April 1, 2008

Charlotte Pipe and Foundry Company – Plastics Division

**Source Contact
Nick Peth
(704) 291-2531**

**M. Cheryl Heying
Executive Secretary
Utah Air Quality Board**

Abstract

Charlotte Pipe and Foundry Company – Plastics Division has submitted an application to construct an acrylonitrile butadiene styrene (ABS), chlorinated polyvinyl chloride (CPVC), and polyvinyl chloride (PVC) pipe manufacturing plant. The facility will operate under Standard Industrial Classification (SIC) code 3084, which applies to establishments primarily engaged in manufacturing plastic pipes. Charlotte Pipe and Foundry Company – Plastics Division plans to install and operate five (5) ABS pipe extrusion lines with an estimated capacity of 20,988 tons per year of ABS pipes, one (1) CPVC pipe extrusion line with an estimated capacity of 2,099 tons per year of CPVC pipes, and five (5) PVC pipe extrusion lines with an estimated capacity of 39,123 tons per year of PVC pipes.

Iron County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Achievable Control Technology (MACT) regulations do not apply to this source. Title V of the 1990 Clean Air Act does not apply to this source.

The potential to emit totals (in tons per year) will be as follows: $PM_{10} = 0.00$, $NO_x = 0.00$, $SO_2 = 0.00$, $CO = 0.00$, $VOC = 10.51$, $HAPs = 9.63$.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order by the Executive Secretary of the Utah Air Quality Board.

A 10-day public comment period will be held in accordance with UAC R307-401-7. A notice of intent to approve will be published in The Daily Spectrum on April 4, 2008. During the public comment period, the proposal and the evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests a public hearing, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated.

Please review the proposed Approval Order conditions during this period and make any comments you may have. The proposed conditions of the Approval Order may be changed as a result of the comments received. Unless changed, the Approval Order will be based upon the following conditions:

General Conditions:

1. This Approval Order applies to the following company:

Site Office

Charlotte Pipe and Foundry Company
Plastics Division
1177 North 5300 West
Cedar City, Utah 84720

Phone Number: (435) 865-3660
Fax Number: (435) 865-3699

Corporate Office Location

Charlotte Pipe and Foundry Company
Plastics Division
P.O. Box 1339
Monroe, North Carolina 28111-1339

(704) 291-3377
(704) 291-3204

The equipment listed in this Approval Order (AO) shall be operated at the following location:

1177 North 5300 West, Cedar City 84720

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4,174.697 km. Northing, 308.777 km. Easting, Zone12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401.
5. All records referenced in this AO which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request. Records shall be kept for two years.
6. Charlotte Pipe and Foundry Company (CPFC) – Plastics Division shall conduct its operations of manufacturing plastic pipes in accordance with the terms and conditions of this AO, which was written pursuant to the company's Notice of Intent (NOI) submitted to the Division of Air Quality (DAQ) on January 28, 2008 and additional information submitted to the DAQ on March 12, 2008.
7. The approved installations shall consist of the following equipment or equivalent*:

A. ABS pipe extrusion process

Rail car unloading Station -	Cyclone exhausts through fabric filters**
Pellet silo #1	No control**
Pellet silo #2	No control **
Pipe grinder -	Cyclone exhausts through fabric filters**
Five (5) ABS pipe extruders	No control

B. CPVC pipe extrusion process

Pipe grinder	Cyclone exhausts through fabric filters**
One (1) pipe extruder	No control

One (1) Bin Vent Cartridge filters (fabric filters) for CPVC compound silo #1

Manufacturer:	O.A. Newton
Model number:	BV1000-4025
Pressure drop (in inches):	Max: 3.5 to Min: 1.0
Control efficiency:	99.99%

C. PVC pipe extrusion process

Resin rail car unloading station	Fabric filters**
Mixing station	Fabric filters**
Pipe grinder	Cyclone exhausts through fabric filters**
Pipe pulverizer	Cyclone exhausts through fabric filters**
Five (5) Pipe extruders	No control

Five (5) Bin Vent cartridge filters (fabric filters) for PVC compound silos 1, 2, 3, 4 and resin silo

Manufacturer:	O.A. Newton
Model number:	BV1000-4025
Pressure drop (in inches):	Max: 3.5 to Min: 1.0
Control efficiency:	99.99%

D. Ink Jet printers

Manufacturer:	Matthews
Model #:	Not available
Number of Printers:	One (1)
Manufacturer:	Imaje
Model #:	1.2 G
Number of Printers:	Seven (7)

Manufacturer:	Imaje
Model #:	2.2 G
Number of Printers:	Two (2)

Manufacturer:	Imaje
Model #:	1.2 M
Number of Printers:	Two (2)

E. Emergency generator

Fuel Type	Diesel
Electrical Output:	80 kW

* Equivalency shall be determined by the Executive Secretary.

** This equipment is listed for informational purposes only. There are no emissions from this equipment or venting exhaust indoor.

8. The bin vent cartridge filters shall control process streams from the silos. All exhaust air from the silos shall be routed through the filters before being vented to the atmosphere.
9. A manometer or magnehelic pressure gauge shall be installed to measure the differential pressure across the fabric filters. Static pressure differential across the fabric filter shall be between 1.0 to 3.5 inches of water column. The pressure gauge shall be located such that an inspector /operator can safely read the indicator at any time. The reading shall be accurate to within plus or minus 1.0 inches water column. The instrument shall be calibrated according to the manufactures instructions at least once every 12 months. Intermittent recording of the reading is required on a monthly basis.
10. CPFC shall notify the Executive Secretary in writing when the installation of the equipment listed in Condition #7 has been completed and is operational. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If the construction and/or installation has not been completed within 18 months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO in accordance with R307-401-18.

11. Visible emissions from any stationary point or fugitive emission source associated with the source or with the control facilities shall not exceed 20% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.
12. The following production and/or consumption limits shall not be exceeded:
 - A. 2,153 gallons of ink and additives used in Ink Jet Printers per rolling 12-month period
 - B. 20,988 tons of ABS pipe production per rolling 12-month period
 - C. 2,099 tons of CPVC pipe production per rolling 12-month period
 - D. 39,123 tons of PVC pipe production per rolling 12-month period

To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of consumption/production shall be kept for all periods when the plant is in operation. Production/Consumption shall be determined by supervisor maintaining records. The records of consumption/production shall be kept on a daily basis.

13. Emergency generators shall be used for electricity producing operation only during the periods when electric power from the public utilities is interrupted, or for regular maintenance of the generators. Records documenting generator usage shall be kept in a log and they shall show the date the generator was used, the duration in hours of the generator usage, and the reason for each generator usage.

Fuels

14. The owner/operator shall use #1, #2 or a combination of #1 and #2 diesel fuel in the back up generator.
15. The sulfur content of any fuel oil or diesel burned shall not exceed:
 - A. 0.05 percent by weight for diesel fuels consumed in all other equipment

The sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of diesel fuels shall be either by company's own testing or test reports from the fuel marketer.

Volatile Organic Compound (VOC) and Hazardous Air Pollutants (HAPs) Limitations

16. The plant-wide emissions of VOCs and HAPs from ink jet printings and associated operations shall not exceed:

10.51 tons per rolling 12-month period for VOCs
0.15 tons per rolling period for Acrylonitrile
0.19 tons per rolling period for Ethyl Benzene
5.98 tons per rolling period for Isophorone
0.22 tons per rolling period for Methanol
0.14 tons per rolling period for Methyl Isobutyl Ketone
2.94 tons per rolling period for Styrene
0.01 tons per rolling period for Vinyl Chloride

Compliance with each limitation shall be determined on a rolling 12-month total. Based on the last day of each month, a new 12-month total shall be calculated using data from the previous twelve months. Monthly calculations shall be made no later than 20 days after the end of each calendar month.

The VOC and HAP emissions shall be determined by maintaining a record of VOC and HAP emitting materials used each month. The record shall include the following data for each material used:

- A. Name of the VOC and HAPs emitting material, such as: ink, etc.
- B. Density of each material used (pounds per gallon)
- C. Percent by weight of all VOC and HAP in each material used
- D. Gallons of each VOC and HAP emitting material used

- E. The amount of VOC and HAP emitted monthly by each material used shall be calculated by the following procedure:

$$\text{VOC} = \frac{\% \text{ VOC by Weight}}{(100)} \times [\text{Density } (\frac{\text{lb}}{\text{gal}})] \times \text{Gal Consumed} \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

$$\text{HAP} = \frac{\% \text{ HAP by Weight}}{(100)} \times [\text{Density } (\frac{\text{lb}}{\text{gal}})] \times \text{Gal Consumed} \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

- F. The amount of VOC or HAP emitted monthly from all materials used
- G. The amount of VOCs or HAPs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total VOC or HAP emissions.

Records & Miscellaneous

17. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on the information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on the equipment authorized by this AO shall be recorded.
18. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

Under R307-150-1, the Executive Secretary may require a source to submit an emission inventory for any full or partial year on reasonable notice.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the DAQ. The UAC R307 rules used by DAQ, the NOI guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

<http://www.airquality.utah.gov/>

The annual emissions estimations below include point source, fugitive emissions, etc. and do not include fugitive dust, road dust, tail pipe emissions, grandfathered emissions, etc. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, Maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for this source (the entire plant) are currently calculated at the following values:

	<u>Pollutant</u>	<u>Tons/yr</u>
A.	PM ₁₀	0.00
B.	SO ₂	0.00
C.	NO _x	0.00
D.	CO	0.00
E.	VOC	10.51
F.	HAPs Total)	9.63

The DAQ is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Sincerely,

John T. Blanchard, Manager
Minor New Source Review Section